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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THANOS KARRAS,
GREG ANGST, and MILTON SILVA-CRAIG

Appeal 2007-3166
Application 09/681,306
Technology Center 3600

Decided: March 31, 2008

Before TERRY J. OWENS, HUBERT C. LORIN, and
DAVID B. WALKER, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Thanos Karras, et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1, 3-9, 11-14, 16, 17, and 19-36. Claims 2, 10, 15, and 18 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM.¹

THE INVENTION

The Appellants' claimed invention "relate to a method and system for integration of mobile imaging units into an application service provider for data storage and information system support." (Specification [0001]).

Claims 1 and 33, reproduced below, are illustrative of the subject matter on appeal.

1. A remotely accessible centralized medical information system, said system comprising:

a mobile imaging unit for generating medical data storable in a data center, wherein said mobile imaging unit is a mobile facility adapted to be used at a plurality of locations;

at least one data retriever for retrieving data from a data center; and

a data center for storing data, said data center accessible from said at least one data retriever, said at least one data retriever located at at least one distinct geographical retrieval point.

33. A method for remotely accessing medical information, said method comprising:

¹ Our decision will make reference to Appellants' Appeal Brief ("App. Br.," filed Oct. 26, 2006) and Reply Brief ("Reply Br.," filed Mar. 23, 2007), and the Examiner's Answer ("Answer," mailed Jan. 24, 2007).

accessing a data center from a mobile
imaging unit at a remote location, wherein said
mobile imaging unit is a mobile facility adapted to
be used at a plurality of locations; and

retrieving medical information at said data
center.

THE REJECTIONS

The Examiner relies upon the following as evidence of
unpatentability:

Wood '035	US 5,891,035	Apr. 6, 1999
Wood '186	US 5,851,186	Dec. 22, 1998
Rothschild	US 6,678,703 B2	Jan. 13, 2004
Evans	US 5,924,074	Jul. 13, 1999

“Applicant’s Background” of the Specification of this application,
09/681,306.

The following rejections are before us for review:

1. Claims 21 and 22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wood '035.
2. Claims 1, 4, 5, 7-9, 11, 13, 14, 33, and 34 are rejected under 35 U.S.C. § 103(a) as unpatentable over Evans and Wood '186.
3. Claim 3 is rejected under 35 U.S.C. § 103(a) as unpatentable over Evans, Wood '186, and Wood '035.
4. Claims 6, 12, and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Evans, Wood '186, and Rothschild.

5. Claims 17, 19, and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Applicant's Background and Rothschild.
6. Claim 23 is rejected under 35 U.S.C. § 103(a) as unpatentable over Wood '035 and Evans.
7. Claims 24-32, 35, and 36 are rejected under 35 U.S.C. § 103(a) as unpatentable over Evans, Rothschild, and Wood '035.

ISSUES

The first issue before us is whether the Appellants have shown that the Examiner erred in rejecting claims 21 and 22 as anticipated by Wood '035.

The second issue before us is whether the Appellants have shown that the Examiner erred in rejecting claims 1, 4, 5, 7-9, 11, 13, 14, 33, and 34 as unpatentable over Evans and Wood '186.

The third issue before us is whether the Appellants have shown that the Examiner erred in rejecting claim 3 as unpatentable over Evans, Wood '186, and Wood '035.

The fourth issue before us is whether the Appellants have shown that the Examiner erred in rejecting claims 6, 12, and 16 as unpatentable over Evans, Wood '186, and Rothschild.

The fifth issue before us is whether the Appellants have shown that the Examiner erred in rejecting claims 17, 19, and 20 as unpatentable over Applicant's Background and Rothschild.

The sixth issue before us is whether the Appellants have shown that the Examiner erred in rejecting claim 23 as unpatentable over Wood ‘035 and Evans.

The seventh issue before us is whether the Appellants have shown that the Examiner erred in rejecting claims 24-32, 35, and 36 as unpatentable over Evans, Rothschild, and Wood ‘035.

A central question common to all these issues is whether the prior art discloses or suggests a “mobile facility.”

FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

Claim construction

1. Claim 1 calls for a “mobile facility.”
2. The Specification does not provide a definition for the “facility.”
3. The ordinary and customary meaning of “facility” is: “3. *often* facilities. Something that facilitates an action or process. 4. Something created to serve a particular function <a new mental health *facility*>”. (See Webster’s II New Riverside University Dictionary (1984).)(Entry for “facility.”)

The scope and content of the prior art

4. Evans is directed to a medical records system for electronically maintaining patient records.
5. Rothschild is directed to a medical image management system.
6. Wood '186 is directed to an ultrasonic diagnostic imaging system. Figs 15-17 show a cart.
7. Wood '035 is directed to an ultrasonic diagnostic imaging system. Fig. 2 shows a cart.
8. Applicant's Background states that "[m]any healthcare facilities, such as hospitals and clinics, employ mobile imaging units to facilitate medical examination of patients." (Specification [0002].)

Any differences between the claimed subject matter and the prior art

9. The claimed invention combines in one method and system features separately disclosed in the prior art.

The level of skill in the art

10. Neither the Examiner nor the Appellants has addressed the level of ordinary skill in the pertinent art of medical data management. We will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355, 59 USPQ2d 1795, 1797 (Fed. Cir. 2001) ("[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error 'where the prior art itself reflects an appropriate level and a need for testimony is not shown'" (quoting

Litton Indus. Prods., Inc. v. Solid State Sys. Corp., 755 F.2d 158,
163 (Fed. Cir. 1985).

Secondary considerations

11. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”) The Court in *Graham* further noted that evidence of secondary considerations “might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” 383 U.S. at 18.

ANALYSIS

Rejection of claims 21 and 22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wood '035.

The Appellants argued claims 21 and 22 as a group (App. Br. 10). We select claim 21 as the representative claim for this group, and the remaining claim 22 stands or falls with claim 21. 37 C.F.R. § 41.37(c)(1)(vii) (2007). Claims 21 reads as follows:

21. A remotely accessible centralized data storage system for mobile medical imaging, said system comprising:
a mobile imaging unit including medical imaging equipment, wherein said mobile imaging unit is a mobile facility adapted to be used at a plurality of locations;
a data center storing medical information in electronic form;
and
a mobile imaging unit/data center communication interface allowing medical information to be transmitted between said mobile imaging unit and said data center.

The Examiner argued that Wood '035 describes the claimed apparatus. Answer 2-4. The Appellants argued that Wood '035 does not describe a mobile *facility* to be used at a plurality of locations and thus does not describe all the limitations claimed. App. Br. 10. The Appellants concede that Wood '035 at Fig. 2, discloses a mobile cart. App. Br. 10. However, according to the Appellants, “[e]ven though the ultrasound system [of Wood '035] may have wheels. It is still medical imaging equipment and not a mobile facility *including* medical imaging equipment.” App. Br. 11.

(Emphasis original.) See also extensive discussion in the Reply Brief (pp. 2-7) on the meaning to be given the claim term “facility”.

We see no difference between a “facility,” as the term is used in the claim, and the “cart” described in Wood ‘035. The Specification provides no definition for the claim term “facility.” Accordingly, it is given the ordinary and customary meaning, which is “[s]omething that facilitates an action or process.” FF 3. Giving the claim its broadest reasonable construction in light of the Specification as it would be interpreted by one of ordinary skill in the art, it describes a system comprising a mobile “something that facilitates an action or process” adapted to be used at a plurality of locations. The Wood ‘035 “cart” reads on that element of the claimed system.

Accordingly, we do not find Appellants’ argument persuasive as to error in the rejection.

Rejection of claims 1, 4, 5, 7-9, 11, 13, 14, 33, and 34 are rejected under 35 U.S.C. § 103(a) as unpatentable over Evans and Wood ‘186.

The Appellants argued claims 1, 4, 5, 7-9, 11, 13, 14, 33, and 34 as a group (App. Br. 13). We select claim 1 as the representative claim for this group, and the remaining claims 4, 5, 7-9, 11, 13, 14, 33, and 34 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2007). Claim 1 is reproduced *supra*.

The Examiner argued that Evans discloses all the claimed features but for the limitation “said mobile imaging unit is a mobile facility adapted to be

used at a plurality of locations.” Answer 6. The Examiner relied on Wood ‘186 to show that a mobile facility is known. Answer 7: “It is noted that an “ultrasound system having wheels as shown in Figure 15-17 [of Wood ‘186] is a “mobile facility” that is capable of being moved to a plurality of locations.” The Examiner determined that “[a]t the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Wood within the system of Evans with the motivation of allowing remotely located healthcare providers to access patient data (Evans; col. 1 lines 63-66), including diagnostic data gathered through ultrasound systems (Wood; col. 1 lines 52-57).” Answer 7.

The Appellants argued that (1) that Wood ‘186’s cart is not a facility; and, (2) there is no motivation or reasonable expectation of success for combining the teachings of the references to arrive at the claimed invention. App. Br. 14-15.

As with the rejection under §102 over Wood ‘035, the central issue here is whether the references show “a mobile imaging unit including medical imaging equipment, wherein said mobile imaging unit is a mobile *facility* adapted to be used at a plurality of locations” (claim 1). The Examiner relied principally on Figs 15-17 of Wood ‘186 to show this. What they show is a cart. In our view, as we explained *supra*, giving the claim its broadest reasonable construction in light of the Specification as it would be interpreted by one of ordinary skill in the art, it describes a system comprising a mobile “something that facilitates an action or process”

adapted to be used at a plurality of locations. The Wood '035 "cart" reads on that element of the claimed system.

Accordingly, the claimed subject matter is the result of substituting Evans' stationary unit for a Wood '186 mobile unit. Where, as here "[an application] claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result." *KSR* at 1740 (citing *United States v. Adams*, 383 U.S. 50-51 (1966)). In that regard, no unpredictable results from such a substitution have shown. FF 11.

Regarding the Appellant's argument that the Examiner has not shown a motivation to combine the disclosures in the cited references that would lead one of ordinary skill in the art to arrive at the claimed invention with a reasonable expectation of success, this is not the standard for determining obviousness.

The Supreme Court decision in *KSR* has clarified the test for obviousness. In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious without an explicit application of the teaching, suggestion, motivation test. In particular, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248." *Id.* (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (emphasis added)), and reaffirmed principles

based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The operative question in this “functional approach” is “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.* at 1740.

The question of whether an improvement is more than the predictable use of prior art elements according to their established functions is relevant here, given the fact that there is no dispute that Evans’ shows the claimed system, but uses a stationary unit and Wood ‘186 discloses a mobile unit. Appellants have not argued that these two elements are not disclosed in the prior art. Accordingly, the claimed combination is the result of substituting Evans’ stationary unit for a Wood ‘186 mobile unit. “When a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *Id.* at 1739 (quoting *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282, 96 S.Ct. 1532 (1976)). In that regard, the record does not include any objective evidence of unexpected results for the claimed combination. No evidence of unexpected results were submitted to rebut the Examiner’s prima facie case of obviousness. Therefore, a prima facie case of obviousness has been established for the subject matter resulting from substituting Evans’ stationary unit for a Wood ‘186 mobile unit according to their established functions. Accordingly, it was not

necessary, as Appellants appear to argue, that the Examiner show a suggestion to combine the teachings of the references in the references before coming to the conclusion that the claimed combination would have been obvious to one of ordinary skill in the art. In light of *KSR*, to establish a prima facie case of obviousness under 35 U.S.C. §103(a), it is sufficient to show that the claimed system is the combination of prior art elements according to known methods to yield predictable results.

That is not to say that all arrangements of prior art elements are necessarily obvious. The Supreme Court made clear that “[f]ollowing these principles may be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement.” *Id.* The Court explained, “[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *Id.* at 1740-41. The Court noted that “[t]o facilitate review, this analysis should be made explicit.” *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to

support the legal conclusion of obviousness”). However, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 1741. In that regard, we are satisfied that the Examiner articulated an apparent reasoning with sufficient rational underpinning to support the legal conclusion of obviousness.

Appellants also contend that the Examiner did not show any reasonable expectation of success in making the claimed combination. However, it is important to note that, in light of *KSR*, this question is less an issue here where a conclusion of obviousness can be reached using the rationale that the claimed combination is no more than the predictable result of substituting Evan’s stationary unit for Wood ‘186’s mobile unit for its established function. The question of a reasonable expectation of success plays a greater role in situations where the rationale employs more of an “obvious to try” reasoning – reasoning which clearly need not be relied upon to make the *prima facie* case of obviousness.

We have carefully reviewed the Appellants’ arguments but do not find them persuasive as to error in the rejection.

Rejection of claim 3 is rejected under 35 U.S.C. § 103(a) as unpatentable over Evans, Wood ‘186, and Wood ‘035.

Claim 3 reads as follows:

3. The system of claim 1, wherein said data retriever comprises a mobile imaging unit.

The Appellants argued against the rejection of claim 3 for the reasons used in arguing against the rejection of claim 1. App. Br. 16. For the reasons *supra*, we find those arguments unpersuasive as to error in the rejection of claim 3.

Rejection of claims 6, 12, and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Evans, Wood '186, and Rothschild.

The Appellants argued claims 6, 12, and 16 as a group (App. Br. 17). We select claim 6 as the representative claim for this group, and the remaining claims 12 and 16 stand or fall with claim 6. 37 C.F.R. § 41.37(c)(1)(vii) (2007). Claim 6 reads as follows:

6. The system of claim 1, wherein said data center comprises an application service provider.

The Examiner argues that Evans and Wood do not disclose a data center comprising an application service provider. To meet that claimed feature, the Examiner relied on Rothschild. Answer 11-12.

The Appellants argued that none of the references disclose/suggest a mobile unit. App. Br. 17. This is the same argument that was made against Wood '186 in rebutting the rejection of claim 1. For the reasons *supra*, we find those arguments unpersuasive as to error in the rejection of claim 6.

Rejection of claims 17, 19, and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Applicant's Background and Rothschild.

The Appellants argued claims 17, 19, and 20 as a group (App. Br. 18). We select claim 17 as the representative claim for this group, and the remaining claims 19 and 20 stand or fall with claim 17. 37 C.F.R. § 41.37(c)(1)(vii) (2007). Claim 17 reads as follows:

17. A remotely accessible centralized medical application service provider system, said system comprising:
a medical application center including at least one medical application, said medical application center including processing power for accessing said medical application; and
a mobile imaging unit, wherein said mobile imaging unit is a mobile facility adapted to be used at a plurality of locations, said mobile imaging unit accessing the output of said medical application.

The Appellants make two arguments: (a) the Examiner improperly relied upon Applicant's Background because the statements made there in the Specification were not admissions of what was known in the art, but were about "needs" which if satisfied would overcome deficiencies in the art, and (b) the art does not teach the claimed mobile imaging unit. The latter argument has been addressed *supra*.

The Examiner relied upon pages 1-2, par. [0002]-[0004], of the Specification as teaching as known a mobile imaging unit. At para. [0002] it states: "Many healthcare facilities, such as hospitals and clinics, employ mobile imaging units to facilitate medical examination of patients." FF 8.

That statement is an admission that mobile imaging units were known at the time the application was filed.

Accordingly, the Appellants' argument to the contrary is unpersuasive.

Rejection of claim 23 is rejected under 35 U.S.C. § 103(a) as unpatentable over Wood '035 and Evans.

Claim 23 reads as follows:

23. The system of claim 22, further comprising an authentication module for authorizing access to said data center from at least one of said healthcare facility and said mobile imaging unit.

The Appellants argue that the art does not teach a mobile imaging unit. App. Br. 19. The Examiner had relied upon Wood '035 (Fig. 2, #200, #202) (Figs. 1-3, col. 2 line 60 to col. 3 line 10, col. 10, lines 43-56). Answer 15.

We are not persuaded by the Appellants' argument because the Wood '035 cart reads on the claimed mobile imaging unit.

Rejection of claims 24-32, 35, and 36 are rejected under 35 U.S.C. § 103(a) as unpatentable over Evans, Rothschild, and Wood '035.

The Appellants argued claims 24-32, 35, and 36 as a group (App. Br. 19). We select claim 24 as the representative claim for this group, and the remaining claims 25-32, 35, and 36 stand or fall with claim 24. 37 C.F.R. § 41.37(c)(1)(vii) (2007). Claim 24 reads as follows:

24. A method for remotely storing medical information, said method comprising:

transmitting medical information collected from a patient at a mobile imaging unit to a data center, wherein said mobile imaging unit is a mobile facility adapted to be used at a plurality of locations; and

storing said medical information at said data center.

The Appellants argue that the art does not teach a mobile imaging unit. App. Br. 19. The examiner had relied upon Wood '035 (Fig. 2, #200, #202) (Figs. 1-3, col. 2 line 60 to col. 3 line 10, col. 10, lines 43-56). Answer 15-17.

We are not persuaded by the Appellants' argument because the Wood '035 cart reads on the claimed mobile imaging unit.

CONCLUSIONS OF LAW

We conclude the Appellants have failed to show that the Examiner erred in rejecting claims 21 and 22 as anticipated by Wood '035; claims 1, 4, 5, 7-9, 11, 13, 14, 33, and 34 as unpatentable over Evans and Wood '186; claim 3 as unpatentable over Evans, Wood '186, and Wood '035; claims 6, 12, and 16 as unpatentable over Evans, Wood '186, and Rothschild; claims 17, 19, and 20 as unpatentable over Applicant's Background and Rothschild; claim 23 as unpatentable over Wood '035 and Evans; and, claims 24-32, 35, and 36 as unpatentable over Evans, Rothschild, and Wood '035.

Appeal 2007-3166
Application 09/681,306

DECISION

The decision of the Examiner to reject claims 1, 3-9, 11-14, 16, 17, and 19-36 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a) (1)(iv) (2007).

AFFIRMED

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